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DEVICE

DENSO WAVE Inc.
Fluorine (MF207)
Report No. DE 2006-1161

Statement of
Qualification

Single product
Biological Resistance

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Statement of Qualification · Single product

Customer

DENSO WAVE Inc.
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Japan

Component tested

Category: Materials

Subcategory: Plastics

Product name: Fluorine (MF207)
(manufacturing date: 4/2020; color: black; serial number: PLATE_2020-11)

Biological resistance test

Standards/Guidelines: ISO 846
The norms stated generally refer to the version valid at the time of the tests.

Test environment parameters: Microbiological laboratory:.....S2

Test procedure parameters:

- Procedure A (resistance to fungi) using spore suspension of spores containing the following test strains:

– *Aspergillus niger* ASM 1957
– *Chaetomium globosum* ASM 1962
– *Paecilomyces variotii* ASM 1961
– *Penicillium pinophillum* ASM 1944
– *Trichoderma virens* ASM 1963

- Procedure C (resistance to bacteria) using bacteria suspension containing the following test strain: *Pseudomonas aeruginosa* DSM 1253

- Incubation at 29 ± 1 °C with a relative humidity of ≥ 95 %; visually inspection after four (4) weeks

Test result / Classification

The biological resistance of Fluorine (MF207) regarding to growth intensity was investigated in accordance with ISO 846 and classified with the following result:

Biological resistance	Growth intensity	Classification
Procedure A (resistance to fungi)	5	none
Procedure C (resistance to bacteria)	2	weak
Overall result	**none**	

The classification is based on a worst-case consideration of the Procedures A and C. In the process, growth intensity was assessed according to the classification system used in ISO 846:

Classification: fungi (Procedure A)
0 = excellent
1a, 1b, 1c = good
2, 3 = weak
4, 5 = none

Classification: bacteria (Procedure C)
0 = excellent
1 = good
2 = weak
3 = none

The measuring devices used for the qualification tests are calibrated at regular intervals; their results can be traced back to national and international standards. In cases where no national standards exist, the test procedure implemented complies with the technical regulations and norms applicable at the time of the test. The relevant documentation can be viewed on request at any time.

Detailed information and parameters of the test environment can be found in the Fraunhofer IPA test report.

Fraunhofer Institute for Manufacturing Engineering and Automation IPA

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on behalf of
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DUPLICATE